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ORIGINAL ARTICLES.

General Medicine in Ophthalmology.

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Dean, and Professor of Ophthalmology and Otology, Kansas Medical College.

Read before the Midland Ophthological Society, Kansas City, Mo., December 13, 1897.

The title of this paper is general and specific—diffuse and circumscribed. It is staked to a specialty, but it has the swing of the cable tow of general medicine. When we have finished you may be able to discuss it, if worthy of criticism, under the heading of "The Difficulties and Dangers of Specialism," or, "The Necessity of a More General Knowledge of Medicine among Specialists."

The oculist is selected in this case because of our personal relation, although it is applicable to the other specialities. As the advance in general medicine marks the progress of civilization, the development of specialism marks the growth of general medicine. Hence, the progress of the world depends upon the work of the specialist.

The definition of the word specialist is, "A person devoted to some one line of study, or professional work; especially, a physician or surgeon who applies himself to the study and practice of some particular branch of the profession, as a specialist in the diseases of women"—commonly called a gynecologist. In these latter days there are also specialized specialists: as in ophthalmology, refractionists, and surgeons. Nature has been so closely watched in the working of her laws in the animal body, and in the effect of animal, vegetable and mineral matter upon man's organism, that the physician is better prepared to assist nature than ever before. He knows the conditions required by nature in the process of growth and repair. He understands how to fence out the tissue-destroying elements and organisms, and how to render the toxic products of the latter inert or to eradicate their excreta. He understands how to strengthen here and antidote there; thus tiding over and destroying, and in this way giving nature a breathing spell and time to gain strength. The physician has learned that nature excuses no mistakes made by man. The intent has no influence in the result. Hence, the necessity to be right, or let the patient and nature alone.

The danger is that the "specialist who never looks beyond his own domain is apt to see things out of true proportion." Man is the creature of habit. He is moulded by his environments. He accepts a part as the whole. Special knowledge benefits the world, but is in danger of stultifying the specialist. The specialist is placed at a disadvantage with the general practitioner of medicine and surgery. He has not the practical opportunity to broaden out. His time and energy are given to his special work. Aside from his physical and mental inability to be greatest in everything, he has competition to meet in his specialty, and he must excel if he makes a record or maintains his standing. His environments are favorable to exclusiveness, and exclusiveness leads to pessimism. The oculist begins to act like the eye was the whole of the body, and the practitioner of medicine looks upon him as a man of one idea—a one organ man.

From the title of this paper and the provocative nature of its author and his statements, he feels warranted in anticipating some discussion and briefly outlines by ques-

tions the field for inquiry:

First. In what per cent. of eye cases do the oculists present make a physical examination of the patient? And of what does the examination consist?

Second. What per cent. of your cases of severe, acute or chronic eye diseases, or trauma, purposely or accidentally, require constitutional as well as local treatment?

Third. To what do you attribute your failures?

Fourth. What instructions do you give your patients respecting local home treatment, diet and hygiene?

Fifth. How many of us have pet remedies and use them almost exclusively?

Sixth. What is our duty toward ourselves as specialists?

Seventh. When does specialism begin to stultify the specialist?

Answers to the foregoing questions can be given approximately or in a general way. The object is to learn what each oculist is doing, how he does it, and to what he attributes his failures.

In my own practice, in addition to an examination of the eye, I make a physical or general examination of all eye cases that are at all obscure or severe. This examination consists in inspection, timing the pulse and noting its character, taking the temperature and frequently examining the urine. In chronic and severe acute eye troubles and trauma, constitutional disturbances are common, and generally require constitutional treatment. I attribute my failures in the treatment of the eye to a failure to diagnose the condition or cause of the disease, either from omission or commission—but quite as often to a lack of faithfully carrying out the minute details of treatment, both local and constitutional. It is true that we must treat patients as we find them, and we must anticipate the hygienic surroundings, diet and care of the office patients at home, by their personal appearance, location, business, and intelligence. Cleanliness of the eye, of the person, and of the surroundings, are important factors in the treatment of eye troubles, and the diet is like unto them. The patient must be educated to this by his oculist. The oculist, to be in proper condition to impress and enforce this instruction, must be clean himself, in person, and dress, and office, and instruments.

Respecting the home treatment our instructions to a patient in a case of severe ulceration of the cornea with secretions in excess, are about as follows:

℞

Acidi boracici (crystals)
Sat. solution, ʒ vi

Sig.—Separate the lids of the affected eye and let two or three dropper fulls of the medicated water (warmed) run in the eye.

After drying the eye of all water and excretions use of the following:

℞

Atropiæ sulph., gr. ij
Aquæ destillata, ʒ i

M. Sig.—Two or three drops in the affected eye every four to six hours, when awake and according to the pain.

If much dryness of throat or a red flush of the face comes on let me know.

The medicine in the large bottle to be used warm, and made so by putting the bottle in a clean basin of clean hot water, fifteen to twenty minutes before using it. The dropper should be scalded out before using it each time. In bathing the eyes at home with hot water, the patient is instructed to boil the water for ten or fifteen minutes first and let it cool to the temperature of endurance in the vessel it boils in (to be sure of cleanliness), do not pour cold water in it to cool it, and bathe the eyelids for five minutes, keeping the vessel on the hot stove. The patient is impressed, so far as actions and words can do it, with the necessity of keeping the eye clean, and that everything put in or on the eye should be clean, and to have the water clean it must be boiled thoroughly, and the basin or pan, preferably a new vessel, used for the eye alone. If any convenience for general bathing, one or two baths should be taken each week, a nurse or assistant to do the scrubbing, rubbing, and drying.

That smoke and dust, particularly tobacco smoke, is very injurious to a sore eye, and

washing and ironing is prohibited for the time being. Keep out of the room while it is being swept, dusted, and aired. All eye work is prohibited, such as reading, sewing, writing, etc.—the object being to give the eye perfect rest and to keep it perfectly clean. A shade should be worn over the affected eye, or dark glasses if the light should affect both eyes. A pattern of the shade to be made and worn is cut out of paper and given to the patient. His instructions are to take a piece of heavy dark cloth, soap it, boil it, wash it thoroughly, rinse it, and iron it until dry. Cut out by the pattern which is semi-circular, and sew a narrow band on each corner long enough to tie around the head. Two or three shades should be made, so that one can be washed every day. Out-door walks should be taken each day, according to the effect on the eye. The office walk is frequently enough exercise.

The diet should consist of food that is easily digested, nutritious, and bulky. Meat diet in some cases should be prohibited, notably in cataract operations where there is polyuria or frequent micturition.

A case of cataract with polyuria came under my observation in March, 1897. A Mr. F., about 50 years old, a farmer near Oklahoma City, Ok. T. He had epitheliomatous or lupus patches on his face, one mature cataract, and one immature. He said his health was fairly good, he did farm work every day although he passed a chamberful of urine every night and had done so for several years. It was found by measurement that he passed about three quarts of urine each night, and about one gallon in twenty-four hours. The urine was practically normal in quality, the specific gravity being slightly below normal. His principal diet was meat, all kinds of meat but mostly bacon. He was kept in the hospital one week and meat diet strictly prohibited, but aside from this he ate ordinary food. About the fourth morning he said that "last night is the first time for many years that I did not have to get up to pass water," and he passed about two quarts that day (24 hours). The amount of urine and the specific gravity was normal within a week. A cataract was removed from his right eye, he made an uneventful and successful recovery, going home at the end of the third week.

Meat diet should be prohibited to a great extent in cataract operations, and all severe injuries to the eye in elderly people. Fruit, vegetable and cereal foods should constitute the principal part of the diet in these cases. Where milk agrees a reasonable quantity should be taken. Certain kinds of fruits and vegetables disagree with some people, and the patient should be consulted in making out the list, and where such an idiosyncrasy is found such food should be proscribed. The meat foods, notably pork and beef, increase the uric acid in the urine and it is hard on the kidneys to eliminate such large quantities of urea.

Pet remedies and restricting the use of therapeutic agents are mostly synonymous. It is much better to have a thorough knowledge of a dozen remedies, than a smattering of a dozen hundred. And since a man's practical knowledge of remedial agents is necessarily limited, it is best for him to make haste slowly. At the same time he should consult with his fellow practitioner, general and special, and broaden out as fast as the safety of his patient will permit.

CONCLUSIONS.

First. The advance in general medicine marks the progress of civilization.

Second. The progress of medicine depends upon the specialist.

Third. Specialism tends to limit the general knowledge of the specialist.

Fourth. A practical knowledge of general medicine is the proper starting point for the specialist.

Fifth. It is the duty of the specialist to look beyond his own specialism frequently, by attending general and other special medical societies. He should read one or two standard journals of medicine and surgery regularly, and have on his library shelf, and consult them often, the latest and best works on the practice of medicine, diseases of women, nervous diseases, physical diagnosis, and pathology. (It being understood that in

addition to his library on his special practice, that he adds to it each year at least one of the latest works on his specialism, and takes at least one up-to-date representative journal.)

Sixth. Collateral sciences should receive some of his attention.

Seventh. The characteristic symptom of stultification in a specialist is marked by his failing knowledge of general medicine.

Report of a Case of Abdominal Surgery.

BY L. H. MUNN, M.D., TOPEKA, KAS.

Read before the Topeka Academy of Medicine and Surgery' December 13, '97.

Mr. President and Fellows of the Topeka Academy of Medicine and Surgery: I owe this society an applogy for the meagreness and incompleteness of this report. I have no good and valid excuse to make. It has been my intention during the last seven or eight weeks, since the case came under my observation, to put it in shape and report it to the members of this society. But from day to day I have put it off, thinking that by the next I should have a little more time or be a little more in the mood. Saturday I was reminded by a note on my desk that this evening I was expected to report "A case of intestinal surgery and present a specimen."

The specimen which I have for you is one secured ante-mortem. The case was of peculiar interest to me. The history as secured from the mother is briefly, that his age was 7 years, that he had been in the best of health apparently; eating, playing and sleeping as boys at his age do.

September 24, had been more than ordinarily active, running, jumping, etc. Along in the afternoon, after jumping from a rather high fence, he came into the house complaining of pain in his abdomen—not especially severe. It was relieved by hot applications. His bowels did not move that day; during the night he was rather restless, complaining some of pain, but on the whole passed a fairly comfortable night.

September 25, did not play, rather quiet, lounged about the house, ate very little, said his stomach ached.

September 26, condition about the same.

September 27, there having been no improvement, and the mother becoming a little worried, Dr. A., having been their family physician for a number of years, was called in. He reports that at this time his expression was weak and tired; tongue moist and coated; abdomen markedly distended and tympanitic, slightly painful on pressure, possibly more marked in upper right iliac region; that there were no special auscultatory sounds heard above the abdomen. Pulse, 110; respiration, 25; temperature, 99½. There had been no vomiting, and his bowels had not moved since the preceding 24th. He informed the mother of the child's critical condition; prescribed sulphate of magnesia, calomel, hot applications; frequent and large enemas of soap and water or glycerine and water; informed the family that if there was no improvement, and as he was not engaged in the general practice, another physician should be called in.

September 28, there having been but little change, and that against the child, I was sent for. When I saw him at 11 A.M. his general appearance was bad. His face was pinched and anxious; skin dry. He was not complaining of any special suffering; had until the last few hours during the night, been vomiting, what to me, from their description, was the contents of the small intestines. His pulse was 120, respiration, 28; temperature 98, in the mouth. His abdomen was intensely tympanitic. Palpation, aside from slight tenderness, to me, extending over the whole abdomen, was negative, and did not reveal any peristaltic tumor. With the history that thorough and complete trials by enemas and otherwise had been made to secure a bowel movement, and without success, I diagnosticated an intestinal ileus of some sort, with likely beginning general peritonitis. In spite of the tympanitis and absence of any bloody discharges, in view of the manner in which the symptoms began; a child not in the best physical health; sudden, and after violent

exertion, and the symptoms not violent enough to call a physician in the family's opinion until the third day of the attack, I assumed an intussusception as the probable explanation of the ileus, and advised an immediate operation as likely giving him his only chance.

He was taken to the Stormont Hospital, and quickly prepared for an abdominal section. At 2:30 P.M., assisted by Drs. McGuire, Alkire, Powell and Grubbs, we opened the abdomen in the median line. There was quite a large amount of floculent colored serum in the peritoneal cavity. At several points the folds of intestines were glued together with a fibro purulent exudate, a a general peritonitis. On account of the enormous distension of the small intestines an opening was made in the gut, and its gas and fluid contents allowed to escape, and the opening closed with a Lambert Zerny suture. This made it possible to satisfactorily handle the intestine and search for the cause of the trouble, which was now readily found by tracing up the collapsed bowel. At first sight we were sure we had an intussusception to deal with, located as it was in the right iliac region. After bringing it up into the operative field we found it to be a complete stricture of the ileum, located about nine inches from the iliac-cecal valve, and caused by the winding about the gut and adhesion of the extreme tip of a Meckel's diverticulum to the messentery. The adhesion was separated without any difficulty. The diverticulum was gangrenous, and the gut beneath it was perforated and in a gangrenous condition. Feeling that possibly we were doing too much, we dissected out the strictured portion of the bowel that was perforated and gangrenous, together with the gangrenous diverticulum.

Did an end to end anastomosis of the gut by the aid of a Murphy button; washed out the peritoneal cavity thoroughly with peroxide of hydg. and a normal salt solution; closed the abdominal cavity with silk-worm gut, using iodoform gauze for drainage.

The operation had been protracted. We had given one-fortieth of strychnia during the anesthesia; chloroform having been used. He was taken from the table with a pulse of 150, put to bed, warm bottles placed about him, giving a hypodermic of strychnia and digitalin. One hour later his pulse had dropped to 120, was fairly good and easily counted. He asked for his father, and had some conversation with him. Two hours later (three after the operation) he with one breath finished the story of his life.

To me this case was of more than ordinary interest; the insignificance of the symptoms for so grave a condition. Three days after the onset before a physician was called. And the pathology: I find that about two per cent. of humanity, by the reason of a defective closure of the vitelline duct have a Meckel's diverticulum of greater or less extent. Just how this occurs I think can be made very plain to the society by a short talk on development, by Dr. Alkire. I can find in the literature at my disposal reports of only thirty cases of strangulation by it, in twenty-five of which the tip was adherent as in our case.

In conclusion, I should like for the purpose of provoking a discussion to ask the society a question. The classical symptoms of an ileus are pain, inability to move the bowels, vomiting, tympanites; and the cause may be adynamic, dynamic, or mechanical. Is it the opinion of the society that the pathology should be differenciated with any degree of certainty before opening the abdomen?

Foetal Development — Mr. President, ladies and gentlemen: Dr. Munn requested me to review briefly that part of foetal development relative to the subject of his paper.

Without any special preparation I will review what to me is the most important.

The human embryo is developed from a single parent cell called the ovum. When the ovum becomes fecundated cell proliferation begins. These cells are arranged in three layers, represented in Fig. 1.

Around the point where the embryo is to develop the three layers mentioned begin to fold inward, as represented in Fig. 2.

This folding continues until the original cavity in the ovum is divided into two parts, the larger called the melline sac, the lesser forming the primitive intestinal tube. During the early part of foetal life a duct joins the two cavities, as represented in Fig. 3.

The alantoris extends from near the lower extremity to the uterine walls, forming the placenta. When the vascular connection is established the function of the vitellus ceases, and the duct should close.

In the case under consideration a portion of this duct remained, forming an appendage to the small intestine known as Meckel's diverticulum.

Evolution of the Mind.

The Medical Age.

At a recent meeting of the British Medical Association, Dr. Richard Maurice Bucke, superintendent of the Asylum for Insane at London, Ontario, delivered the address in the psychology section, in which he spoke of psychology as the most interesting and comprehensive of the sciences. Incidentally he alluded to the evolution of the human mind as follows:

The human being at about two years of age has reached the the mental plane of the higher animals. At the average of three years in the human individual, self-consciousness is born, and the individual from the point of view of psychology has become a human being: but the color sense, the sense of fragrance, the musical sense, and the human moral nature are all acquired at a later period of life. Many thousand years must have elapsed since the first development of self-consciousness in the human race. Memory and simple consciousness appear a few days after birth; the use of tools twelve months after; shame, remorse and a sense of the ludicrous at fifteen months; and it is to be hoped that in every instance the time of the appearance of the faculty in the infant corresponds with the stage at which the same faculties occurred in the ascending animal scale. Three laws are worthy of notice, and govern the acquisition of new faculties in any given case: First, the longer a race has been in possession of a given faculty, the more universal will that faculty be in the race. Second, the longer a race has been in the possession of a given faculty, the more firmly is that faculty found in each individual of the race who possess it. Third, the state of dreaming seems to reveal the fact that in sleep such mind as we have differs from our waking mind, especially by being more primitive—in dreams we pass backward into the pre-human mental life.

After referring to the probable periods at which the distinctive human faculties appear in the race and in the individual, and to the broad division of consciousness into simple and self-consciousness, the speaker added:

The mind is still growing. No man can ever say positively that his theory is the true one, but I am prepared to say of the above hypothesis that, if accepted, it will enable us to understand something of the phenomena of mind as we observe it. In this idea of evolution lies enveloped the mystery of the past, the explanation of the present, and the sure prescience of the future, giving what we were, what we are, and what we shall be. If this hypothesis be correct, then all forms of insanity, including all forms of disease, are cases of atavism. First, by slow and devious stages taken in darkness, our remote ancestors climbed to consciousness. After another long interval they reached self-consciousness. But that cannot be the end—the cosmic consciousness could not stop there. Our old mental faculties are fading out, others advance to greater perfection alongside of them, others are only now springing up. So-called telepathy and clairvoyance seem to be specimens of such commencing faculties; so also the phenomena of spiritualism. The labors of the society for psychical research have made it plain that the phenomena are real and well authenticated. To me these are cases in which a given human being has faculties which are not commonly preserved.

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Topeka, Kansas, Saturday, Dec. 18, 1897.

THE relation of the physician to the success of insurance enterprises has been discussed a great many times and from different standpoints. Statistics are probably the best evidence upon which to settle the point of the importance of a medical examination. It must be conceded under any circumstances that if a medical examination is any protection to the insurance company or organization, then the more accurate and complete the examination the more protection afforded the company, and the more competent the examiner the more accurate and complete will the examination be. The physician's skill, then, is a commodity which varies in value according to the estimate of protection afforded the employer. Old line companies may often take risks unacceptable by the fraternal associations, but in doing so they calculate the premium on the basis of the extra risk they assume. Fraternal insurance associations have but one standard of acceptable applicants, and these must always be first class. They, as a rule, have no provision by which a doubtful risk may be accepted at a higher rate. Every doubtful risk, then, which does secure admission to a fraternal insurance order weakens the protection afforded the members who are already insured. The permanency of such an organization depends to a great extent upon the character of the risks assumed, and this depends upon the integrity and ability of the examiner. It is impossible to escape the importance of the relation which the physician examiner bears to the stability of the order, and a more careful consideration of these facts by the officers and members of the various associations will soon become a matter of necessity. In spite of the fact that nearly every fraternal order requires that a local examiner must be a graduate in medicine, a perusal of the lists of examiners for a number of the most prominent fraternal orders will disclose the names of men who are not only not graduates but who are grossly incompetent. It is not necessary even to examine the list of examiners to detect either carelessness or ignorance, for nearly every month the death roll displays some glaring evidence. That the pay is insufficient for a careful examination is no excuse for the man who has assumed the duties and pledged himself to labor for the best interests of his order. It should be remembered that an estimate of the condition or expectancy of an applicant by a man who neglects to make a careful examination is of no more value or protection to the company or fraternity than the estimate by a man totally incompetent.

DR. MOYER, of Chicago, editor of *Medicine*, was waylaid and shot on a busy street in that city. His injury, however, is not fatal.

THERE will be a joint meeting of the Topeka Academy of Medicine and Surgery and the Eastern Kansas Society in Topeka on the second Monday evening in January.

Diagnosis of Infantile Diseases.

The Physician and Surgeon.

This may seem to be a subject that is closely and sufficiently covered by the general principles of the practice of medicine. If this is true, then my subject is superfluous and unnecessary, to say the least. I will make the assertion, and not only make it but substantiate it, that a proper and careful diagnosis in the cases of infantile diseases is the most important section of the principles and practice of medicine. It is here where the successful future of the young physician lies; also the well-being and strength of the future generation. By a little timely interference in the right direction, while the physical forces are very susceptible to any correction, either by some medical or mechanical means, some grave pathological condition or normal development may be averted that otherwise would follow us to the border of the unknown. "As the twig is bent so the tree is inclined."

The importance of this subject has already begun to arouse the minds of many thinkers among the laity as well as the profession. France has contemplated making a law regulating the government appointments as to importance of position according to number of children in family. The object of this is, growth of a future generation. If this is an important question for legislation, is it not doubly an important question for the medical profession to improve all means at their command for a better diagnosis of disease found in infancy—not only all diseases common to adult life, but many scarcely known after the period of childhood is passed? Children not only suffer in like manner the same diseases met with in our adult patients, but develop symptoms that are alone peculiar to their age, and seldom, if ever, met with in the same disease with a patient of mature years. This, then, makes it a matter of great importance in meeting the variations of the symptoms, and connecting them with the age of the patient in order to make a correct diagnosis, and avoid a failure at correcting the diseased condition, and the mortification at having to admit our mistake.

It is not my thought to appear before you with some new creed or dogma, or to announce some great reformation in the orthodox method of treatment, but simply to pin my faith to that of numerous others who have already seen and demonstrated the importance of this subject under our discussion at the present time. Another support for my previous assertion is the fact that the majority of symptoms at our command by which we form our judgments of the pathological conditions are objective, thereby leaving us to our perception and better judgment without the aid of any subjective symptoms, easily procured in the adult. We must be able to form a correct diagnosis under much more difficult circumstances than in the patient of mature years. I not long ago heard a member of the medical profession make this statement: "A physician has no business in attempting to treat a little child. They should be left to some old lady, who can do more for them than anyone else." It seemed a strange statement for a medical man to make, but he was readily classified as belonging to that portion of the medical profession who have no desire for advancement in the medical science, or for a hand to help them out of the rut so well trodden by their forefathers, and into which they so easily fell. It is not reasonable to suppose, because some individual has successfully battled the storms, of upwards of three score and ten, that they are better qualified to care for this fragile mechanism, laboring under the weight of some pathological burden, than the physician who has made the tiny life a study from its time of conception down to its period of independent life, and fully understanding the physiological functions of the delicate organs with which he must deal in treating these abnormal conditions. How necessary we think it is to construct a perfect foundation under an important structure. It is the foundation that makes the safe and substantial building; but how liable we are to trust the management of the foundation of the health of our children to the

uneducated and even superstitious. How often has someone, still cherishing a relic of barbarism, taken the last shirt from the body of the little patient, and submitted it to the fire to be destroyed in the firm hope and belief of bringing about an abrupt termination of that dreaded disease, membranous croup. And during this time this heathenish practice is being carried on the disease is rapidly advancing beyond the help of medical skill. The more we depend upon good common sense, observation and experience, with the knowledge and experience previously obtained, the greater will be the reward of our efforts.

The successful physician cannot diagnose his case and formulate his treatment from his books alone. He must be able to read his patient like an open book at any time to meet different temperaments and a wide variation in susceptibility, all of which have a tendency to increase the difficulty of a correct diagnosis. We begin to see the importance of this department of medicine when we realize that the majority of sickness is with the young; and that according to statistical investigation 53 per cent. of all deaths recorded occur at two years and under, and that 26 per cent. occur under six months of age. This fact of itself would lead one to the only conclusion possible, and that it requires skill and untiring study to better enable us to properly diagnose and care for these delicate organisms that labor unceasingly to attain a full and complete development. This will lead us to one important point in our subject, namely, the question of nutrition—whether proper or not.

Then the first object of our consideration is: What is the proper nourishment required in this particular case, and does the child receive what nature demands to maintain a perfect physiological function of the different organs and tissues? If the demand is satisfied we then, in the same manner, examine into its care, hygienic surroundings, etc. If we still find the requirements are fulfilled we must expect now to meet the exciting cause of the functional disturbance in some organ or organs of the body. For the purpose of being better prepared to locate the cause, we will endeavor to point out a few landmarks that we soon learn to recognize by their faithful efforts in pointing out the direction we are so anxiously searching for.

The cutaneous surface of an infant being very susceptible to nervous and other influences, is very quick to attract our attention, and show by its general appearance where we may look for the difficulty. For example, if there is a livid appearance of the skin we may look for a lack in the functional activity of the respiratory organs, or malformation of the heart or some of the larger blood vessels. If the lividity is induced by exertion, and the respiration remains normal then we at once look for a malformation of one of the principal parts of the circulatory system. A transient circumscribed congestion of the face, ears or forehead indicates cerebral congestion. In the cold stage of intermittent fever in infancy the appearance of the face is a pallor or lividity with the goose-skin appearance, while in the adult we get the distinct rigor.

There are other diagnostic points in connection with the general condition of the surface, but we will pass on to some of the principal local manifestations. The different conditions of the voice each have their significance in a formation of a correct diagnosis. A sharp, piercing cry, with head retracted and fixed, extremities flexed, muscular spasms partial or complete, are sure signs of a cerebro-spinal disease. A hoarse, harsh or abrupt cry in connection with a sitting posture, points clearly to some disease of the throat or respiratory organs. Then, again, the low, moaning and plaintive cry is clearly indicative of some intestinal disorder of a grave nature. The respiratory movements are also of diagnostic value. In cerebral disease the number of respirations per minute are diminished, while the diseases of the lungs increase in accordance with the extent of the tissues involved. An abrupt termination of the inspiratory effort, followed by an expiratory moan, is indicative of pleuritis or pneumonitis in the acute stage. The temperature

and pulse rate are not of as much diagnostic value in a general way as in the adult, but at the same time may be very misleading to the attending physician. The pulse rate, also the temperature, may be elevated temporarily by a sudden surprise or excitement, and even during the process of an examination by the physician, especially if a stethoscope or some other instrument is brought to the notice of the little patient. This sudden change would lead to an error in our diagnosis if it was not for as sudden a decline of both after a short period of rest. Pain in the head, lasting only a few days, may be caused by an acute cold, and involving the frontal sinuses, an acute febrile condition or an acute inflammation of some organ of the body. If it is a protracted pain, and possibly intermittent at times, it is not generally neuralgic, as is often the case in adults, but is due to some organic disease of the brain or meninges. Inflammation of the abdominal organs in the adult produces pain according to the severity of the disease, while in children pain may be entirely absent. If present, it is in no degree equal to the amount of the disease. A constant pain in the chest or abdomen lasting over a period of several weeks, is a good indication of caries of the vertebræ. Pain in the leg, especially on the inside of the knee, is a symptom of hip-joint disease. These are neuralgic pains reflected from the point of irritation over the nerve to its point of distribution. The different reflex phenomena are all produced by the same nervous mechanism in a similar manner.

This then, is a physiological or natural law. Natural laws do not change, unless it is by some modifying influence, thus we become accustomed to look for a certain cause as a result of a certain reflex condition, all other things being equal. This is the foundation upon which we base our means of diagnosis in diseases of infancy. Every child possesses a nervous system with an anatomical structure and physiological functions identical with that of other children; so by observation we may classify different nervous phenomena as being the result of certain causes with a correctness that may be depended upon much easier than in the adult where the nervous system has become deranged in its perfection of functional activity.

A Note of the Etiology of Pharyngeal Mycosis.

Reported by John Dunn, M.A., M.D., in Virginia Medical Monthly.

The following observation is of interest in connection with the etiology of nasal polypi: In the winter of 1894, I was consulted by Mr. A., aged 28, on account of his throat. Examination revealed immense numbers of mycotic masses sprung from the regions of the naso-pharyngeal, faucial and lingual tonsils. Microscopic examination showed masses to be formed of the leptothrix fungus. The history of the case, so far as it concerns us here, is as follows: Severe cold in the spring of 1894. Cold refused to yield to treatment. Chronic cough developed. Patient lost much flesh; appetite became poor; daily fever developed. Examination of the lungs showed them to be filled with loud rales. General appearance of the chest that of late state of tuberculosis. Expectoration excessive. Breath very foul. Patient very weak. Small perirectal abscess. Night sweats. Besides general treatment, an endeavor was made to remove the mycotic masses. Various applications were tried; and while they were greatly reduced in number and size, it seemed impossible to prevent their recurrence. After Mr. A. had been under the treatment about a month or six weeks, he was taken with pleuro-pneumonia. Mr. A.'s illness was severe for several weeks. Local treatment had to be given up. As soon as he recovered sufficiently to stand a railway journey, a trip South was advised. He gradually recovered his strength. On his return to Richmond, he came to my office for me to examine his throat. There were present no signs of the former mycosis. Not one mycotic mass could be seen. The large number of these masses existing in the throat at the time Mr. A. was taken

with pleuro-pneumonia had, without local treatment, all disappeared.

This observation tends to give weight to the hypothesis that pharyngeal leptothrix mycosis occurs over the adenoid areas of throat, the secretions of whose mucous membranes have become changed as the the result of impairment of the general health. What these changes are we are at present unable to say. This observation, however, makes it worth the while to examine the nature of the oral mucous secretions; and it further teaches us that local treatment is not absolutely essential to the cure of the manifestations of this mycotic disease. It would seem that it tells us, moreover, that our first duty should be to secure for our patient the best—general treatment.

Calumba as a Bitter Tonic.

A. F. Myers, M.D, in Medical Review.

Looking carefully over the long list of vegetable tonics one is a little confused as to which particular one to select for a general use. Calumba, in my experience, has answered this purpose satisfactorily for years. It has given me the best results as a stomachic in mild forms of dyspepsia and as a general corroborant in the convalescent stage from acute diseases, acute disorders of the bowels, and fevers.

Calumba is a pure bitter tonic without astringency and very little aroma. It is a very agreeable tonic, mollifying in nature, and particularly acceptable in all cases where there is unusual delicacy of the stomach; it is likewise peculiarly adapted to the convalescent stage of many acute disorders of the bowels and typhoid fever. In general debility, where a simple bitter tonic is desired, calumba is preferable. As a vegetable tonic it is not unpleasantly bitter, but has rather an agreeable taste, causing a generous flow of the saliva; in the stomach it causes increased secretions of the gastric juice; hence it excites the appetite, improves the digestive process by its local action and thereby strengthens the system generally by its cerebro-spinal influence. Calumba being free from irritant or astringent qualities, will afford relief in attacks of catarrhal inflammation of the mucous membranes of the stomach in restoring the imperfect digestion. Unlike other bitters, calumba has a soothing effect upon the hyperemic and engorged membrane and seems to act as a sedative upon the stomach, lessens the thirst, and relieves the irritability. In atonic dyspepsia, it stimulates the different secretions and aids the functions of digestion and assimilation. As a tonic, calumba likewise exerts a slight hepatic influence in restoring tone to the debilitated intestinal tract.

Calumba, even in full doses, in no way irritates the alimentary canal; nor does it cause nausea, nor unpleasant eructations. As a vegetable tonic and general corroborant, it has always yielded happy results for me, and deserves more general use; hence my desire to call particular attention to this old but valuable drug.

The Diagnosis of Typhoid from Blood Serum.

Wm. H. Park, M.D., in Medical News.

The scientific investigations of Pfeiffer upon the specific bactericidal substances developed in the blood of animals, immunized by the injections of typhoid bacilli, have given rise to unexpected practical results in furnishing a means of diagnosis which bids fair to be as reliable and practical as the examinations now made in cases of suspected diphtheria and tuberculosis.

Widal and others in France discovered that these specific substances were present regularly in the blood of typhoid patients as early as the seventh day and sometimes earlier. They found that if to a drop of blood serum, or to a drop of water containing a solution of dried blood from a typhoid patient, a moderate number of typhoid bacilli were added, a very peculiar reaction occurred, which was readily observed under the microscope. The typhoid bacilli were found to gather themselves in clumps, and

thus entangled to cease their former active movements. As a rule this took place within five minutes, and always within a few hours. With no other blood than that from those who have suffered from, or are suffering from, typhoid fever will the typhoid bacilli give this reaction.

Johnston, of Montreal, has simplified the technique so that anyone can collect the blood for examination, and if he is familiar with simple bacteriological work, can himself observe the reaction. The blood is obtained upon a clear glass slide from a needle-prick of the ear or finger of the suspected case. It is allowed to dry, and thus sent or carried to the laboratory. It will give this reaction even after having been kept for several days.

At this laboratory a loop of bouillon-culture of absolutely reliable typhoid bacilli is placed upon a clean cover-glass, and to this is added a large loopful of a watery solution of the dried blood-specimen. The cover-glass is now inverted over the concavity of a hollow slide and sealed at the edges with melted vaseline. Under the microscope, with a high-power dry-lens, or with a one-twelfth oil-immersion the rapid clumping of the bacilli in the hanging drop can be observed.

At the New York Health Department laboratory there has been examined in this way the blood of thirty-four cases of typhoid fever. In thirty-three of these characteristic clamping of the bacilli occurred either immediately or within a few hours. In one, a case already convalescent forty days, no reaction appeared. The late date at which the blood was taken, or a possible error in diagnosis may account for the failure.

In fourteen cases of other diseases this clumping did not occur at all, or to such a slight degree as to be easily distinguishable from the typhoid cases. Some of the doubtful and mild cases gave as good reactions as the more severe cases.

This is a confirmation, therefore, of the claims of Widal, Johnston and others, that it is possible to make a correct, positive diagnosis in the great majority of cases, and perhaps, with greater experience, in all, by the reaction which takes place between the typhoid bacilli and the blood of the suspected case. If there is no specific reaction in a case sick over a week, the diagnosis of typhoid fever must be excluded. If a marked reaction occur, then, unless the patient has had an attack of typhoid fever within at farthest ten years, the case is typhoid fever. The few in which a slight reaction only occurs, must be left doubtful until later examinations clear up the case. The Health Department of New York City is so certain of the practical value of these examinations in doubtful cases that it has already arranged methods for collecting and reporting, without charge, upon blood-smears from suspected cases, as described in the announcement which appears in this issue of the *Medical News*.

The Uses and Abuses of Fruit.

Pacific Health Journal.

In nature's supplies for the nourishment of man, fruit plays a very important part, especially in the summer and fall seasons, when in most places it is very abundant.

The results to be derived from this class of food depends upon the use we make of it. Too often it is used only as a sort of luxury added to the regular regimen of the day, taken after an abundant meal, or at any time when it seems most convenient. Such a practice often ends unpleasantly. The unfavorable features of digestion are only aggravated, while gastro-intestinal irritation and bilious temperament are developed.

The same condition sometimes arises from the hasty use of unripe fruit. This is also true of fruit which is diseased, either by accident or by insect life.

The free use of fruit, however, in a reasonable way, is beneficial. It is a natural food, and usually, when ripe, is all ready for the digestive process without cooking or other preparation; therefore, it is perhaps, above all others, the food in which nature outside of the body comes closest to nature within the body. Its juices and flavors are digestive stimulants and blood purifiers,

while its substance gives actual nourishment to the functions and tissues. It is a food that does not as easily undergo decomposition and fermative changes, either outside or within the body, as do many other articles; hence, from this standpoint, it is adapted for use in many digestive disorders.

Fruit should be eaten in proper quantities, and at meal hours, and then only. Sometimes it brings about disturbances by combination with other articles of food. Stewed fruit with the most starchy vegetables, and acid fruits with milk, are bad combinations. Fruit and grains go very well together as a rule, and we remember that these were the two great classes of food which were originally designed by the Creator for the sustenance of man.

Fruit at meals should not be considered an addition to what otherwise would have been taken, but as a substitute for some part of the meal. When taken with enfeebled digestion or various forms of dyspepsia, the combination should be specially guarded; and sometimes it is wisest not to take any other kind of food with the fruit at one meal, and maybe for a whole day. This change of diet will often be found beneficial with persons who are suffering from gastric fermentation, and the morbid processes which accompany this condition.

Moon Blindness.

The Philadelphia Polyclinic.

In the Boston *Medical and Surgical Journal*, Ivan A. Centervall reports a case of "moon blindness," occurring in a sailor, 19 years of age, who had slept on deck between 2 and 4 A.M., while somewhere between the equator and 5° north latitude, during the first week of June, 1895. It is the custom of the sailors to carefully protect their eyes from the moon's rays while sleeping on deck, but this man had uncovered his face during sleep. Between 7 and 8 o'clock the following evening he had difficulty in making his way about, although the moon and stars were shining brightly. For a long while thereafter he was practically blind after sunset. He could see nothing straight ahead, but could dimly discern the bulk of objects to the side of his line of vision, without making out clearly what they were. Recovery was gradual, after cessation from work.

Bone Transplantation as a Substitute for Amputation.

Journal of the American Medical Association.

Barden-Hauer has lately resorted to division and transplantation of one-half of a healthy metatarsal bone for disease and death of an adjacent bone shaft. In cases of the partial or complete destruction of one of the metacarpal or metatarsal bones, by this method he has had in several instances the most gratifying results. Twice he applied this deviee to exterior destruction of the lower end of the radius. He has also executed a remarkably ingenious operation for the restitution of the upper end of the humerus, by detaching the spine of the scapula from its muscular attachments, cleaving through the ridge close to its base and freeing it on either end. He then transported this segment of live bone into the gap left by the removal of the destroyed shaft. The result, as in his other cases, was successful. In young subjects the scapular spiner is reproduced, care being taken to always leave the periosteal investment behind.

The Iodides in Heart Disease.

New York Medical Times.

Some time ago Clark, of London, wrote an exceedingly interesting and valuable monograph on the use of iodide of arsenic in certain forms of heart disease. Recently Vierordt, of Heidelberg, has reported the effects of iodide of sodium and iodide of potassium. The cases treated were in part subject to arteriosclerosis, excluding those of pronounced cardiac weakness and albuminuria. From fifteen to thirty grains of sodium iodide was given daily in divided doses in

milk or Seidlitz water, and after a time followed by potassium iodide in the form of an effervescent salt. The effect on the arteriosclerosis was especially marked in cases accompanied by cardiac distress, especially angina pectoris. It seemed to be but of little consequence whether the arteriosclerosis was of syphilitic origin or not. Vierordt does not pretend to define the *modus operandi* of the iodides, but thinks the morbid process in the blood vessels is brought to a standstill so that the high-toned blood pressure is gradually lowered and therefore the normal circulating function is re-established for a time. While this treatment seems to check vascular changes, there is no evidence that it restores the tissues to their normal condition.

The Relief of Ocular Pain.

In a practical review of the available measures for the relief of ocular pain, including hot water fomentations, ice cold compresses, leeching, counter-irritation, anesthetics and analgesics, the Atlantic *Medical Weekly* (editorially, Nov. 20, 1897) says:

"Of them all (referring to coal-tar derivatives) lactophenin is probably the safest, and is quite as efficient as any. In ten to fifteen grain doses the pain of an iritis is sometimes relieved for hours, at any rate long enough to allow the patient to get needed sleep. In glaucoma secondary to a dislocated lens, where all the effect of an iridectomy had been produced by the injury itself, this drug was the only one save morphia which gave relief. The pain of herpes zoster ophthalmicus, which is so persistent and severe, was also relieved in great measure by this drug in one case where morphia failed to produce any alleviation of the suffering."

DR. RIVIERE, of Lyons, uses a fluid extract of pituitary mucous membrane in the treatment of ozœna and ulcerative diseases of the nose. The extract is made from the membrane taken from the middle and lower turbinates of a sheep.

Hasty Burials.

Medical Investigator.

A woman living in Brussels informed the registrar of the death of her child. When he came to prove the death, he remarked the face was death-like, body stiff, heart still; the child appeared quite dead. He raised one of its arms, and instead of falling it remained in the position placed. He immediately resorted to restoratives, and was able in a few hours to bring it back to life and consciousness.

Without enlarging on the evidences of death, it may be said that an ophthalmoscopic examination is an excellent means of diagnosis. During the last agony it is easy to identify the differences that are produced in the blood vessels of the pupil, especially the general anemia of the arteries, and the pallor of the optic papilla: when life ceases the veins become separated as if cut with a knife from point to point.

Gonorrhea.

Duquaire in Journal des Practiciens.

By reason of the great power possessed by methyl salicylate of penetrating investing membranes, I conceived the idea that it will reach the gonococci even when they are seated in the deepest layers of the mucous membrane. I cured one case in five days, but do not generalize from this alone. I use a solution composed of one part methyl salicylate, twenty parts bismuth subnitrate, and 100 parts liquid vaseline, and give three injections of the same daily; the patient should employ immediately after urination and hold in the urethra as long as possible.

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